Claims

We claim:

1. An immunogenic composition comprising mycobacteria wherein said mycobacteria comprises modified protein production.

2. The composition of Claim 1, wherein the modified protein expression comprises an increase in heat shock protein production.

3. The composition of Claim 2, wherein the heat shock protein is selected from the group consisting of Hsp10, Hsp40, Hsp60, Hsp70, Hsp90, GrpE, ClpB and alpha-cystallin.

4. The composition of Claim 1, wherein the mycobacteria is selected from the group consisting of *M. tuberculosis*, *M. avium-intracellulare*, *M.bovis*, *M. kansasii*, *M. fortuitum*, *M. chelonae*, *M. leprae*, *M. africanum*, *M. microti* and *M.paratuberculosis*.

5. The composition of Claim 1, wherein the mycobacteria comprises *M. tuberculosis*.

6. The composition of Claim 5, wherein the heat shock protein comprises Hsp 60 or Hsp 70.

7. The composition of Claim 5, wherein the heat shock protein consists of Hsp 60 and Hsp 70.

8. The composition of Claim 1, further comprising a pharmaceutically acceptable carrier.

9. A method for eliciting an immune response in a human or animal comprising to said human or animal an immunogenic composition wherein said composition comprises an pathogenic organism having modified heat shock protein production.

10. The method of Claim 9, wherein the pathogenic organism is selected from the group consisting of *M. tuberculosis*, *M. avium-intracellulare*, *M.bovis*, *M. kansasii*, *M. fortuitum*, *M. chelonae*, *M. leprae*, *M. africanum*, *M. microti* and *M.paratuberculosis*.

11. The method of Claim 10, wherein the pathogenic organism comprises *M. tuberculosis* and the modified heat shock protein production comprises an increase in the production of heat shock proteins.

12. The method of Claim 11, wherein the heat shock protein is selected from the group consisting of Hsp10, Hsp40, Hsp60, Hsp70, Hsp90, GrpE, ClpB and alpha-cystallin.

13. The method of Claim 11, wherein the heat shock proteins consists of Hsp 60 and Hsp 70.

14. A method for treating mycobacterial disease comprising administering to a human or animal an immunogenic composition comprising modified mycobacterial pathogens wherein said mycobacterial pathogens have increased heat shock protein production.

15. The method of Claim 14, wherein the mycobacterial disease is selected from the group consisting of tuberculosis and Crohn's disease.

16. The method of Claim 15, wherein the heat shock protein is selected from the group consisting of Hsp10, Hsp40, Hsp60, Hsp70, Hsp90, GrpE, ClpB and alpha-cystallin.

17. The method of Claim 15, wherein the heat shock protein consists of Hsp 60 and Hsp 70.

18. The method of Claim 14, further comprising a pharmaceutically acceptable carrier.

19. An immunogenic composition comprising an improved BCG vaccine wherein the vaccine comprises modified *M. bovis* having increased heat shock protein production.

20. The immunogenic composition of Claim 19, wherein the heat shock protein is selected from the group consisting of Hsp10, Hsp40, Hsp60, Hsp70, Hsp90, GrpE, ClpB and alpha-cystallin.